



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

MAR 03 2020

Mr. Alberto Ayala
Air Pollution Control Officer
Sacramento Metropolitan Air Quality Management District
777 12th Street
Sacramento, California 95814

Dear Mr. Ayala:

Thank you for your submission of the Sacramento Metropolitan Air Quality Management District (SMAQMD) *2019 Annual Monitoring Network Plan* on November 14, 2019. We have reviewed the submitted document based on the requirements set forth in 40 CFR Part 58. Based on the information provided in the plan, the U.S. Environmental Protection Agency (EPA) approves all portions of the network plan except those specifically identified below.

Please note that we cannot approve portions of the annual network plan for which the information in the plan is insufficient to judge whether the requirement has been met, or for which the information provided does not meet the requirements as specified in 40 CFR 58.10 and the associated appendices. EPA Region 9 also cannot approve portions of the plan for which the EPA Administrator has not delegated approval authority to the regional offices. Enclosure A (*A. Annual Monitoring Network Plan Checklist*) is the checklist EPA used to review your plan for items that are required to be included in the annual network plan along with our assessment of whether the plan submitted by your agency addresses those requirements. Items highlighted in yellow are those EPA Region 9 is not acting on, as we either lack the authority to approve the specific item, or we have determined that a requirement is either not met or information in the plan is insufficient to judge whether the requirement has been met. Items highlighted in green in enclosure A require attention in order to improve next year's plan.

All comments conveyed via this letter and enclosure should be addressed prior to submittal of this year's annual monitoring network plan to EPA.

If you have any questions regarding this letter or the enclosed comments, please feel free to contact me at (415) 947-4134 or Anna Mebust at (415) 972-3265.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gwen Yoshimura", is written over a horizontal line.

Gwen Yoshimura, Manager
Air Quality Analysis Office

Enclosure:

A. Annual Monitoring Network Plan Checklist

cc (via email): Janice Lam Snyder, SMAQMD

David Yang, SMAQMD

Levi Ford, SMAQMD

Jin Xu, California Air Resources Board (CARB)

Kathy Gill, CARB

Michael Miguel, CARB

Michael Werst, CARB

Sylvia Vanderspek, CARB

Webster Tasat, CARB

Kyle Vagadori, CARB

A. ANNUAL MONITORING NETWORK PLAN CHECKLIST

(Updated July 10, 2018)

Year: 2019

Agency: Sacramento Metropolitan Air Quality Management District (SMAQMD)

40 CFR 58.10(a)(1) requires that each Annual Network Plan (ANP) shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations.

40 CFR 58.10(a)(1) further directs that, “The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement.” On this basis, review of the ANPs is based on the requirements listed in 58.10 along with those in Appendices A, C, D, and E.

EPA Region 9 will not take action to approve or disapprove any item for which Part 58 grants approval authority to the Administrator rather than the Regional Administrators, but we will do a check to see if the required information is included and correct. The items requiring approval by the Administrator are: NCore, and Speciation (STN/CSN).

Please note that this checklist summarizes many of the requirements of 40 CFR Part 58, but does not substitute for those requirements, nor do its contents provide a binding determination of compliance with those requirements. The checklist is subject to revision in the future and we welcome comments on its contents and structure.

Key:

White	meets the requirement
Yellow	requirement is not met, or information is insufficient to make a determination. Action requested in next year’s plan or outside the ANP process.
Green	item requires attention in order to improve next year’s plan.

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
GENERAL PLAN REQUIREMENTS					
1.	Submit plan by July 1 st	58.10 (a)(1)	Y, submittal email	N	Plan was submitted late, on November 14, 2019. Please submit future plans on time.
2.	30-day public comment / inspection period	58.10 (a)(1); 58.10 (c)	Y, submittal email	Y	No comments were received.
3.	Statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E, where applicable	58.10 (a)(1)	Y, p. 1	Y	
4.	Modifications to SLAMS network – case when we are not approving system modifications	58.10 (a)(2); 58.10 (b)(5); 58.10 (e); 58.14	NA	NA	
5.	Modifications to SLAMS network – case when we are approving system modifications per 58.14	58.10 (a)(2); 58.10 (b)(5); 58.10 (e); 58.14	Y, p. 16	Y	EPA is approving the temporary closure of the Folsom-Natoma St. site for shelter replacement and related construction. Please make sure to note the dates that the site was closed in your next network plan.
6.	Does plan include documentation (e.g., attached approval letter) for system modifications that have been approved since last ANP approval?		NA	NA	None approved since the last network plan approval.
7.	Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal	58.10 (b)(5)	Y, p. 15-16	Y	
8.	Precision/Accuracy reports submitted to AQS	58.16 (a)	Y, no changes noted	Y, no changes noted	
9.	Annual data certification submitted	58.15	Y, no changes noted	Y, no changes noted	
10.	Statement that SPMs operating an FRM/FEM/ARM that meet Appendix E also meet either Appendix A or an approved alternative. Documentation for any Appendix A approved alternative should be	58.11 (a)(2)	Y, no changes noted	Y, no changes noted	

¹ Unless otherwise noted.

² Response options: NA (Not Applicable), Yes, No, or Incomplete.

³ Assuming the information is correct.

⁴ Response options: NA (Not Applicable) – [reason], Yes, No, Insufficient to Judge, or Incorrect

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
	included. ⁵				
11.	SPMs operating FRM/FEM/ARM monitors for over 24 months are listed as comparable to the NAAQS or the agency provided documentation that requirements from Appendices A, C, or E were not met. ⁶	58.20 (c)	Y, Appendix A	Y	
12.	For agencies that share monitoring responsibilities in an MSA/CSA: this agency meets full monitoring requirements or an agreement between the affected agencies and the EPA Regional Administrator is in place	App D 2(e)	Y, no changes noted	Y, no changes noted	Y, no changes noted

GENERAL PARTICULATE MONITORING REQUIREMENTS (PM₁₀, PM_{2.5}, Pb-TSP, Pb-PM₁₀)

13.	Designation of a primary monitor if there is more than one monitor for a pollutant at a site.	App. A 3.2.3	Y, Appendix A	Y	
14.	Distance between QA collocated monitors. For low volume PM instruments (flow rate < 200 liters/minute) > 1 m. For high volume PM instruments (flow rate > 200 liters/minute) > 2m. [Note: waiver request or the date of previous waiver approval must be included if the distance deviates from requirement.]	App. A 3.2.3.4 (c) and 3.3.4.2 (c)	Y, no changes noted	Y, no changes noted	

PM_{2.5} –SPECIFIC MONITORING REQUIREMENTS

15.	Document how states and local agencies provide for the review of changes to a PM _{2.5} monitoring network that impact the location of a violating PM _{2.5} monitor.	58.10 (c)	Y, no changes noted	Y, no changes noted	
16.	Identification of any PM _{2.5} FEMs and/or ARMs not eligible to be compared to the NAAQS due to poor comparability to FRM(s) [Note 1: must include required data assessment.] [Note 2: Required SLAMS must monitor PM _{2.5} with NAAQS-	58.10 (b)(13) 58.11 (e)	NA	NA	

⁵ Alternatives to the requirements of appendix A may be approved for an SPM site as part of the approval of the annual monitoring plan, or separately.

⁶ This requirement only applies to monitors that are eligible for comparison to the NAAQS per 40 CFR §§58.11(e) and 58.30.

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
	comparable monitor at the required sample frequency.]				
17.	Minimum # of monitoring sites for PM _{2.5} [Note 1: should be supported by MSA ID, MSA population, DV, # monitoring sites, and # required monitoring sites] [Note 2: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App. D 4.7.1(a) and Table D-5	Y, p. 11	Y	
18.	Requirements for continuous PM _{2.5} monitoring (number of monitors and collocation)	App. D 4.7.2	Y, p. 11	Y	
19.	FRM/FEM/ARM PM _{2.5} QA collocation	App. A 3.2.3	Y, p. 17	Y	Fulfilled by the CARB PQAO.
20.	PM _{2.5} Chemical Speciation requirements for official STN sites	App. D 4.7.4	Y, no changes noted	Y, no changes noted	
21.	Identification of sites suitable and sites not suitable for comparison to the annual PM _{2.5} NAAQS as described in Part 58.30	58.10 (b)(7)	Y, no changes noted	Y, no changes noted	
22.	Required PM _{2.5} sites represent area-wide air quality	App. D 4.7.1(b)	Y, no changes noted	Y, no changes noted	
23.	For PM _{2.5} , within each MSA, at least one site at neighborhood or larger scale in an area of expected maximum concentration	App. D 4.7.1(b)(1)	Y, no changes noted	Y, no changes noted	
24.	If additional SLAMS PM _{2.5} is required, there is a site in an area of poor air quality	App. D 4.7.1(b)(3)	Y, no changes noted	Y, no changes noted	
25.	States must have at least one PM _{2.5} regional background and one PM _{2.5} regional transport site.	App. D 4.7.3	NA	NA	
26.	Sampling schedule for PM _{2.5} - applies to year-round and seasonal sampling schedules (note: date of waiver approval must be included if the sampling season deviates from requirement)	58.10 (b)(4); 58.12(d); App. D 4.7	Y, p. 14, Appendix A	Insufficient to judge in one instance	Table 3-4 states that Sacramento-Del Paso Manor operates with daily sampling, but the Appendix A site table for the monitor lists the sampling frequency as 1:3. Daily sampling is required for this monitor. Please update the tables to clarify the sampling frequency.
27.	Frequency of flow rate verification for automated and manual PM _{2.5} monitors	App. A 3.2.1	Y, Appendix A	Y	
28.	Dates of two semi-annual flow rate audits conducted	App. A 3.2.2	Y, Appendix A	Y	

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
	in CY2018 for PM _{2.5} monitors [Note: 5 -7 month interval is recommended but not a requirement.]				

PM₁₀ –SPECIFIC MONITORING REQUIREMENTS

29.	Minimum # of monitoring sites for PM ₁₀ [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App. D, 4.6 (a) and Table D-4	Y, p. 11	Y	Table 3-1 notes that certain sites were impacted by wildfire smoke in 2017 and 2018 that may affect minimum monitoring requirements in the Sacramento MSA. Please work with EPA to ensure that minimum monitoring requirements continue to be met in the future.
30.	Manual PM ₁₀ method collocation (note: continuous PM ₁₀ does not have this requirement)	App. A 3.3.4	Y, p. 17	Y	Fulfilled by the CARB PQAQ.
31.	Sampling schedule for PM ₁₀	58.10 (b)(4); 58.12(e); App. D 4.6	Y, p. 14	Y	
32.	Frequency of flow rate verification for automated and manual PM ₁₀ monitors	App. A 3.3.1 and 3.3.2	Y, Appendix A	Y	
33.	Dates of two semi-annual flow rate audits conducted in CY2018 for PM ₁₀ monitors [Note: 5 -7 month interval is recommended but not a requirement.]	App. A 3.3.3	Y, Appendix A	Y	

Pb –SPECIFIC MONITORING REQUIREMENTS

34.	Minimum # of monitors for non-NCore Pb [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App D 4.5	Y, p. 12	Y	
35.	Pb collocation: for non-NCore sites	App A 3.4.4 and 3.4.5	NA	NA	
36.	Any source-oriented Pb site for which a waiver has been granted by EPA Regional Administrator	58.10 (b)(10)	NA	NA	
37.	Any Pb monitor for which a waiver has been	58.10 (b)(11)	NA	NA	

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
	requested or granted by EPA Regional Administrator for use of Pb-PM ₁₀ in lieu of Pb-TSP				
38.	Designation of any Pb monitors as either source-oriented or non-source-oriented	58.10 (b)(9)	Y, no changes noted	Y, no changes noted	
39.	Sampling schedule for Pb	58.10 (b)(4); 58.12(b); App A 3.4.4.2 (c) and 3.4.5.3 (c)	Y, no changes noted	Y, no changes noted	
40.	Frequency of flow rate verification for Pb monitors audit	App A 3.4.1 and 3.4.2	Y, Appendix A	Y	
41.	Dates of two semi-annual flow rate audits conducted in CY2018 for Pb monitors [Note: 5 -7 month interval is recommended but not a requirement.]	App A 3.4.3	Y, Appendix A	Y	

GENERAL GASEOUS MONITORING REQUIREMENTS

42.	Frequency of one-point QC check (gaseous)	App. A 3.1.1	Y, Appendix A	Y	
43.	Date of Annual Performance Evaluation (gaseous) conducted in CY2018	App. A 3.1.2	Y, Appendix A	Y	

O₃ –SPECIFIC MONITORING REQUIREMENTS

44.	Minimum # of monitoring sites for O ₃ [Note 1: should be supported by MSA ID, MSA population, DV, # monitoring sites, and # required monitoring sites] [Note 2: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.] [Note 3: monitors that do not meet traffic count/distance requirements to be neighborhood or urban scale (40 CFR Appendix E, Table E-1) cannot be counted towards meeting minimum monitoring requirements]	App D 4.1(a) and Table D-2	Y, p. 11	Y	
45.	Identification of maximum concentration O ₃ site(s)	App D 4.1 (b)	Y, no changes noted	Y, no changes noted	
46.	Sampling season for O ₃ (Note: Waivers must be renewed annually. EPA expects agencies to submit re-evaluations of the relevant data each year with the	58.10 (b)(4); App D 4.1(i)	NA	NA	

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
	ANP. EPA will then respond as part of the ANP response.)				
47.	A plan for making Photochemical Assessment Monitoring Stations (PAMS) measurements, if applicable. The plan shall provide for the required PAMS measurements to begin by June 1, 2019.	58.10 (a)(10)	Y, no changes noted	Y, no changes noted	

NO₂ –SPECIFIC MONITORING REQUIREMENTS

48.	Minimum monitoring requirements for area-wide NO ₂ monitor in location of expected highest NO ₂ concentrations representing neighborhood or larger scale (operation required by 1/1/13)	App D 4.3.3	Y, p. 12	Y	
49.	Minimum monitoring requirements for susceptible and vulnerable populations monitoring (aka RA40) NO ₂ (operation required by January 1, 2013)	App D 4.3.4	NA	NA	
50.	Identification of required NO ₂ monitors as either near-road, area-wide, or vulnerable and susceptible population (aka RA40)	58.10 (b)(12)	Y, no changes noted	Y, no changes noted	

NEAR ROADWAY – SPECIFIC MONITORING REQUIREMENTS

In CBSAs ≥ 2.5 million, the following near-roadway minimum monitoring requirements apply:

51.	Two NO ₂ monitors	App. D 4.3.2(a); 58.13(c)(3) and (4)	NA	NA	
52.	One CO monitor	App. D 4.2.1(a); 58.13(e)(2)	NA	NA	
53.	One PM _{2.5} monitor	App. D 4.7.1(b)(2); 58.13(f)(2)	NA	NA	

In CBSAs ≥ 1 million and AADT ≥ 250K, the following near-roadway minimum monitoring requirements apply:

54.	Two NO ₂ monitors	App. D 4.3.2(a); 58.13(c)(3) and (4)	Y, p. 12	Y	As noted in the plan, the highest AADT in the Sacramento MSA exceeds the 250,000 AADT criteria. Thank you for continuing to
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	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
					work with EPA and CARB to determine the appropriate timeline associated with the implementation of a 2 nd near-roadway NO ₂ monitor.
55.	One CO monitor (by 1/1/2017)	App. D 4.2.1(a); 58.13(e)(2)	Y, no changes noted	Y, no changes noted	
56.	One PM _{2.5} monitor (by 1/1/2017)	App. D 4.7.1(b)(2); 58.13(f)(2)	Y, no changes noted	Y, no changes noted	
In CBSAs ≥ 1 million and ≤ 2.5 million AND AADT < 250K, the following near-roadway minimum monitoring requirements apply:					
57.	One NO ₂ monitors	App. D 4.3.2(a); 58.13(c)(3)	NA	NA	
58.	One CO monitor (by 1/1/2017)	App. D 4.2.1(a); 58.13(e)(2)	NA	NA	
59.	One PM _{2.5} monitor (by 1/1/2017)	App. D 4.7.1(b)(2); 58.13(f)(2)	NA	NA	
SO₂ –SPECIFIC MONITORING REQUIREMENTS					
60.	Minimum monitoring requirements for SO ₂ based on PWEI and/or RA required monitors under Appendix D 4.4.3 [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App D 4.4	Y, no changes noted	Y, no changes noted	
61.	Monitors used to meet Data Requirements Rule (operational no later than January 1, 2017.)	51.1203(c)	NA	NA	
NCORE –SPECIFIC MONITORING REQUIREMENTS					
62.	NCore site and all required parameters operational: year-round O ₃ , SO ₂ , CO, NO _y , NO, PM _{2.5} mass, PM _{2.5} continuous, PM _{2.5} speciation, PM _{10-2.5} mass, resultant wind speed at 10m, resultant wind direction at 10m, ambient temperature, relative humidity. NO _y waiver, if applicable.	App. D 3(b)	Y, no changes noted	Y, no changes noted	

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
SITE OR MONITOR - SPECIFIC REQUIREMENTS (OFTEN INCLUDED IN DETAILED SITE INFORMATION TABLES)					
63.	AQS site identification number for each site	58.10 (b)(1)	Y, Appendix A	N in one instance	<p>Detailed site information was not included for the Sacramento-1309 T Street site, which is a CARB site. The plan states that this information was included in the CARB annual network plan, but it was not. Typically, districts within the CARB PQAO that prepare separate network plans (such as SMAQMD) provide information on CARB sites (such as the Sacramento-1309 T Street site) that are located within the area described in the district network plan.</p> <p>SMAQMD and CARB should work together to ensure detailed information regarding this site can be found in at least one of the two network plans prepared by these agencies.</p>
64.	Location of each site: street address and geographic coordinates	58.10 (b)(2)	Y, no changes noted	Y, no changes noted	
65.	MSA, CBSA, CSA or other area represented by the monitor	58.10 (b)(8)	Y, no changes noted	Y, no changes noted	
66.	Parameter occurrence code for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Y, no changes noted	Y, no changes noted	
67.	Basic monitoring objective for each monitor	App D 1.1; 58.10 (b)(6)	Y, no changes noted	Y, no changes noted	
68.	Site type for each monitor	App D 1.1.1	Y, no changes noted	Y, no changes noted	
69.	Monitor type for each monitor, and Network Affiliation(s) as appropriate	Needed to determine if other	Y, no changes noted	Y, no changes noted	

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
		requirements (e.g., min # and collocation) are met			
70.	Scale of representativeness for each monitor as defined in Appendix D	58.10(b)(6); App D	Y, no changes noted	Y, no changes noted	
71.	Parameter code for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Y, no changes noted	Y, no changes noted	
72.	Method code and description (e.g., manufacturer & model) for each monitor	58.10 (b)(3); App C 2.4.1.2	Y, no changes noted	Y, no changes noted	
73.	Sampling start date for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Y, no changes noted	Y, no changes noted	
74.	Distance of monitor from nearest road	App E 6	Y, no changes noted	Y, no changes noted	
75.	Traffic count of nearest road	App E	Y, no changes noted	Y, no changes noted	
76.	Groundcover	App E 3(a)	Y, no changes noted	Y, no changes noted	
77.	Probe height	App E 2	Y, no changes noted	Y, no changes noted	
78.	Distance from supporting structure (vertical and horizontal, if applicable, should be provided)	App E 2	Y, no changes noted	Y, no changes noted	
79.	Distance from obstructions on roof (horizontal distance to the obstruction and vertical height of the obstruction above the probe should be provided)	App E 4(b)	Y, no changes noted	Y, no changes noted	
80.	Distance from obstructions not on roof (horizontal distance to the obstruction and vertical height of the obstruction above the probe should be provided)	App E 4(a)	Y, no changes noted	Y, no changes noted	
81.	Distance from the drip line of closest tree(s)	App E 5	Y, no changes noted	Y, no changes noted	
82.	Distance to furnace or incinerator flue	App E 3(b)	Y, no changes noted	Y, no changes noted	
83.	Unrestricted airflow (expressed as degrees around	App E, 4(a) and	Y, no changes noted	Y, no changes noted	

	ANP requirement	Citation within 40 CFR 58¹	Was the information submitted?² If yes, section or page #s.	Does the information provided³ meet the requirement?⁴	Notes
	probe/inlet or percentage of monitoring path)	4(b)			
84.	Probe material (NO/NO ₂ /NO _y , SO ₂ , O ₃ ; For PAMS: VOCs, Carbonyls)	App E 9	Y, no changes noted	Y, no changes noted	
85.	Residence time (NO/NO ₂ /NO _y , SO ₂ , O ₃ ; For PAMS: VOCs, Carbonyls)	App E 9	Y, no changes noted	Y, no changes noted	

Public Comments on Annual Network Plan

Were comments submitted to the S/L/T agency during the public comment period?	No
Were comments included in ANP submittal?	NA
Were any of the comments substantive? If yes, which ones? If comments were not substantive provide rationale.	NA
Were S/L/T responses to substantive comments included in ANP submittal?	NA
Were the S/L/T responses to substantive comments adequate?	NA
Do the substantive comments require separate EPA response (i.e., agency response wasn't adequate)?	NA
Are the sections of the annual network plan that received substantive comments approvable after consideration of comments? If yes, provide rationale	NA